

Attorney Docket No.: ABLE-0021
Inventors: Secombes et al.
Serial No.: 10/088,780
Filing Date: July 22, 2002
Page 3

This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of the claims:

Claims 1-54 (canceled)

Claim 55: (currently amended) A method for passive immunisation of ~~an animal~~ a fish against a disease-causing ~~agent virus~~, said method comprising administering to an animal a non-infectious eukaryotic expression ~~vector nucleic acid~~ plasmid construct comprising a DNA sequence encoding a recombinant antibody molecule derived from an antibody raised against the disease-causing ~~agent virus~~ so that said recombinant antibody molecule is expressed in and secreted from cells of the ~~animal~~ fish in vivo upon administration of said construct to the ~~animal~~ fish.

Claim 56: (previously presented) The method of claim 55 wherein the encoded recombinant antibody molecule is a single chain antibody molecule comprising a secretion signal peptide and variable domains of immunoglobulin heavy and light chain genes linked together by a linker sequence.

Claim 57: (cancelled)

Attorney Docket No.: ABLE-0021
Inventors: Secombes et al.
Serial No.: 10/088,780
Filing Date: July 22, 2002
Page 4

Claim 58: (currently amended) The method of claim 55 wherein the animal fish has a deficient immune system.

Claim 59: (cancelled)

Claim 60: (currently amended) The method of claim 55 wherein the DNA sequence encodes antibody molecules to several different epitopes of the disease-causing agent-virus.

Claim 61: (currently amended) The method of claim 55 wherein the DNA sequence encodes a gene-expression library of antibodies to the disease-causing agent-virus.

Claim 62: (previously presented) The method of claim 55 wherein the encoded recombinant antibody is a virus-neutralising antibody.

Claim 63: (currently amended) The method of claim 55 wherein the non-infectious eukaryotic expression ~~vector~~ nucleic acid plasmid encodes a viral haemorrhagic septicaemia virus VHSV-neutralising ~~monoclonal~~ antibody

Attorney Docket No.: ABLE-0021
Inventors: Secombes et al.
Serial No.: 10/088,780
Filing Date: July 22, 2002
Page 5

derived from monoclonal antibody 3F1H10 with two amino acid substitutions Asn 35 to Thr and Lys 64 to Thr in the H-chain gene and comprises a secretion signal of rainbow trout transforming growth factor (TGF-beta).

Claim 64: (currently amended) The method of claim 55 wherein the non-infectious eukaryotic expression ~~vector-~~
~~nucleic acid~~ plasmid construct is administered in the form of a vaccine, dosage form, cream, ointment, liquid or paint.

Claim 65: (currently amended) The method of claim 55 wherein the non-infectious eukaryotic expression ~~vector-~~
~~nucleic acid~~ plasmid is administered by injection, spray or gene gun.

Claim 66: (currently amended) The method of claim 55 wherein a plurality of non-infectious ~~nucleic acid~~ plasmid constructs encoding antibodies to a spectrum of disease-causing ~~agents~~ viruses is administered to the ~~animal~~ fish.

Claim 67: (cancelled)

Attorney Docket No.: **ABLE-0021**
Inventors: **Secombes et al.**
Serial No.: **10/088,780**
Filing Date: **July 22, 2002**
Page 6

Claim 68 (new): A non-infectious eukaryotic expression plasmid construct comprising a DNA sequence encoding a recombinant antibody molecule derived from an antibody raised against a disease-causing virus, said recombinant antibody molecule being expressed and secreted in cells of fish upon in vivo administration of said non-infectious eukaryotic expression plasmid construct to fish.

Claim 69: (new) The non-infectious eukaryotic expression plasmid construct of claim 68 wherein the encoded recombinant antibody molecule is a single chain antibody molecule comprising a secretion signal peptide and variable domains of immunoglobulin heavy and light chain genes linked together by a linker sequence.

Claim 70: (currently amended) The non-infectious eukaryotic expression plasmid construct of claim 68 wherein the DNA sequence encodes antibody molecules to several different epitopes of the disease-causing virus.

Claim 71: (new) The non-infectious eukaryotic expression plasmid construct of claim 68 wherein the DNA

Attorney Docket No.: ABLE-0021
Inventors: Secombes et al.
Serial No.: 10/088,780
Filing Date: July 22, 2002
Page 7

sequence encodes a gene-expression library of antibodies to the disease-causing virus.

Claim 72: (new) The non-infectious eukaryotic expression plasmid construct of claim 68 wherein the encoded recombinant antibody is a virus-neutralising antibody.

Claim 73: (new) The non-infectious eukaryotic expression plasmid construct of claim 68 wherein the non-infectious eukaryotic expression plasmid encodes a viral haemorrhagic septicaemia virus VHSV-neutralising antibody derived from monoclonal antibody 3F1H10 with two amino acid substitutions Asn 35 to Thr and Lys 64 to Thr in the H-chain gene and comprises a secretion signal of rainbow trout transforming growth factor (TGF-beta).